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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/522,298	01/25/2005	Cornelius Antonius Hezemans	NL 020683	1496

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EXAMINER	
NGUYEN, LINH THI	
ART UNIT	**PAPER NUMBER**
2627	

DATE MAILED: 10/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/522,298	HEZEMANS, CORNELIUS ANTONIUS	
	Examiner	Art Unit	
	Linh T. Nguyen	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 July 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Seiji et al (JP Publication number 2001067680).

In regards to claim 1 Seiji et al discloses a method of controlling a disc drive apparatus of a type comprising: a sledge (Fig. 1, element 5) radially displaceable with respect to an apparatus frame (Fig. 1); and a platform (Fig. 1 element 2; It is inherent that there is plate form to hold up the objective lens.) radially displaceable with respect to said sledge; the method of controlling comprising the acts of detecting a substantial deceleration or acceleration or stop of the sledge when moving radially (Paragraph [0009], lines 19- 22); the method of detecting comprising an act of detecting a radial displacement of said platform with respect to said sledge (Paragraph [0037]; the voltage detection 22 is detected base on the speed of the sledge 5, inherently detects the position of the sledge radially speed = distance (position) / time).

In regards to claim 2, Seiji et al discloses a method according to claim 1, wherein the method of detecting comprises step act of detecting a back-EMF in an electromagnetic device in an actuator for displacing said platform with respect to said

sledge (Fig. 1, element 2 and 5), the method comprising the step of detecting a back-EMF in said electromagnetic device (Paragraph [0037], line 1).

In regards to claim 3, Seiji et al discloses a method according to claim 1, comprising an act of detecting an optical read signal and deriving from the optical read signal an X-displacement signal (Paragraph [0035], lines 7-10).

In regards to claim 4, Seiji et al discloses a method according to claim 1, wherein detecting the substantial deceleration or acceleration or stop of the sledge (Paragraph [0005] and Paragraph [0037], lines 3-6) occurs when a detected radial displacement of said platform with respect to said sledge exceeds a predetermined decision threshold (Paragraph [0034] and Paragraph [0043]; when error is detected due to vibration (swaying the objective lens), which is moved by elements 4 and 5, causes a radial displacement).

In regards to claim 5, Seiji et al discloses a method according to claim 2, comprising an act of detecting an actuator control signal activated to counteract the radial displacement of said platform with respect to said sledge (Paragraph [0037]).

In regards to claim 6, Seiji et al discloses a method according to claim 5, wherein detecting a substantial deceleration or acceleration or stop of said sledge (Paragraph [0005], lines 1-4) comprises an act of detecting an actuator control signal exceeds a

predetermined decision threshold (Paragraph [0037], lines 4-6).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 7-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seiji et al in view of Hangai et al (US Patent Number 4977554). For a description of Seiji et al see rejection, supra.

In regards to claim 7, Seiji et al discloses a method for detecting a substantial deceleration or stop of the sledge using a method according to claim 1 (Paragraph [0005], lines 1-2 and Paragraph [0037], lines 4-6)

Seiji et al does not but Hangai et al discloses a method for initializing a radial position of an optical lens in a start-up phase (Column 4, lines 4-8) of a disc drive apparatus (Fig. 2), the method comprising the steps of: exerting a force on said sledge; stopping said force as soon as a substantial radial displacement of said platform with respect to said sledge is detected (Column 4, lines 53-68). At the time of the invention it would have been obvious to person of ordinary skill in the art to modify Seiji et al method of a disc drive actuator to detect the initial radial position of the optical lens as Hangai et al suggested. The motivation for doing so would have been to more accurately detect the position of the slider (Column 1, line 54).

In regards to claim 8, Seiji et al discloses a disc drive apparatus, comprising: radially displaceable scan means (actuator), comprising: a sledge radially displaceable with respect to an apparatus frame (Fig. 1); a platform radially displaceable with respect to said sledge (Fig. 1 element 2 in respect to element 5);
Seiji et al does not but Hangai et al discloses an apparatus further comprising: sledge stop detection means (Fig. 2, elements 29) for detecting that the moving sledge coming to a stop (Column 5, lines 10-11); said sledge stop detection means (Fig. 2, element 31) comprising radial displacement detection means for detecting a radial displacement of said platform with respect to said sledge (Column 3, lines 63-68 and Column 4, lines 1-8).

In regards to claim 9, rejected for the same reasons as claim 2 above.

In regards to claim 10, rejected for the same reasons as claim 3 above.

In regards to claim 11, rejected for the same reasons as claim 4 above.

In regards to claim 12, rejected for the same reasons as claim 5 above.

In regards to claim 13, rejected for the same reasons as claim 6 above.

In regards to claim 14, Seiji et al discloses an apparatus, further comprising: a controllable sledge actuator configured to move said sledge radially with respect to said apparatus frame (Fig. 1 element 26); a control unit configured to control said sledge actuator (Fig. 1 element 25).

Seiji et al does not but Hangai et al discloses an apparatus comprising control unit being responsive to said radial displacement detection means (Fig. 2, element 29) to switch off said sledge actuator (Column 4, lines 31-33) when said radial displacement detection means indicates that said moving sledge has come to a standstill (Column 4, lines 1-8 and lines 53-59).

In regards to claim 15, Seiji does not but Hangai et al discloses an apparatus, wherein a displacement range (Fig. 1 range from 34a-34b) of said sledge with respect to said apparatus frame is restricted by at least one end stop (Column 4, lines 53-59); wherein said control unit is designed, in an initializing phase, to energize said sledge actuator such as to move said sledge towards said end stop (Column 5, lines 10-19); and wherein said control unit is configured to switch off said actuator as soon as said sledge has reached said end stop (Column 4, lines 58-67). At the time of the invention it would have been obvious to person of ordinary skill in the art to modify Seiji et al disc driver apparatus to have stop detection means as suggested by Hangai et al. The motivation for doing so would have been to create a perfect stop without causing a loud contact (Column 5, line 5)

Response to Arguments

Applicant's arguments filed 7/19/06 have been fully considered but they are not persuasive. Applicant's arguments on page 13 lines 13-24 and page 14 lines 1-2 is merely describing a servo control, not accessing control where switch 20 is on black

dot. Applicants argue on page 14, lines 10-14, that Seiji does not teach "detecting a substantial deceleration or acceleration or stop of the sledge when moving radially." However, on paragraph [0009], stated, "a speed control means to control to reduce the passing speed of the direction of tracking of an objective lens, a switching means for tracking to change and output the output of tracking control signal generating means and output of a speed-control means." Therefore, the reference does detect the changes of speed of the sledge radially by applying the voltage to a tracking actuator 4. Applicant's continue argue on page 14, lines 15-21, that Seiji does not teach "the method of detecting comprising an act of detecting a radial displacement of said platform with respect to said sledge." However, in the figure 1 clearly shows that the device detects a voltage from element 4, which moves the platform 4 with respect to the sledge 5. In the abstract on lines 15-19 states "the electromotive voltage detection means 22 detects the voltage generated on a tracking actuator lens in the disk radial direction based on the detection result to output it to a first tracking switching means 20." Also paragraph [0037], the back EMV detects the voltage 22, which inherently detects the speed of the sledge and therefore, able to calculate the position of the sledge radially. In claim 8, the applicant's argue that Hangai et al does not disclose a radial displacement in respect to the slider 1 with the magnet 5. However, it is obvious that the "predetermined position" is position on the slit plate 27 (sledge), therefore, shows the radial displacement of the slider (platform) in respect to the plate (sledge) (Column 3, lines 51-68). In claim 7, applicants argue that Hangai et al does not teach a "stopping force as soon as substantial radial displacement of said platform." In respect

to the argument on column 4, lines 53-68 describes a slider has reached the inner position with respect to the sledge has turn off the current to the motor driving circuit 34 to abut with the stopper 3a. Hence, describes the stop position of the slider (platform) in respect to the slits 26 of the plate 27 (sledge).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh T. Nguyen whose telephone number is 571-272-5513. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, A. Wellington can be reached on 571-272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LN
September 28, 2006

ANDREA WELLINGTON
SUPERVISORY PATENT EXAMINER